INFORMATION LETTER

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Acreage Intentions Of Peas for Processing

Processors of green peas intend to increase their 1950 acreage less than 1 percent above 1949 plantings, according to the Bureau of Agricultural Economics. Should their early March plans be carried out, canners and freezers will contract and plant 409,700 acres, as compared with 406,250 acres planted in 1949 and a 1938-47 average of 431,440 acres.

Assuming there will be a loss in plantings of about 7 percent, in line with recent years, a planted acreage of 409,700 acres of processing peas would result in 381,000 acres for harvest.

Reports indicate that about 318,700 acres of the contemplated 1950 acreage will be for canning. This would be 2 percent less than the 324,920 acres harvested for canners in 1949. The acreage reported intended for freezers is 12 percent above 1949.

Reports from the principal pea-producing state, Wisconsin, indicate an acreage of 120,000, equal to last year's plantings.

Gulf State Vegetable Canners Create New Association

Approximately 25 canners and managers of vegetable canning and processing factories in Louisiana, Mississippi and Alabama held an organizational meeting March 3 in the formation of an association known as the Louisiana - Mississippi - Alabama Vegetable Processors Association.

Representatives of the factories located in those three states banded together in order that they might deal more effectively with their common problems, such as legislative, crop, labor, and marketing problems.

Douglas M. Warriner of Warriner Products Co., St. Francisville, La., was elected president of the new association. Other officers elected are A. G. Brush, Mayhaw Canning Co., Inc., Laurel, Miss., vice president; Bernard F. Trappey, B. F. Trappey & Sons, New Iberia, La., treasurer; and J. F. Bowman, Southern Shellfish Company, Harvey, La., secretary.

1950 Canners Directory

Canners are asked to examine the questionnaire forms for the 1950 *Canners Directory*, to make necessary corrections and changes, and to return these forms to the Association immediately, in the self-addressed envelopes provided.

Canners also are asked to advise the Association of the existence or operation of any canning firm not listed in the 1949 *Directory*.

N.C.A. Represented on Grocery Trade Practices Committee

The major national organizations in the grocery industry have selected representatives to serve on the industry committee which will work with the Federal Trade Commission in formulating a draft of proposed trade practice rules for the industry. Carlos Campbell, Secretary, and H. Thomas Austern, Counsel, will represent N.C.A.

The establishment of the committee was proposed and adopted by representatives of the grocery industry at the trade practice conference held by the FTC on February 3 (see INFORMATION LETTER of February 11, page 99).

The major national groups whose representatives comprise the committee are the N.C.A. and the National Association of Retail Grocers, U. S. Wholesale Grocers Association, Inc., National-American Wholesale Grocers Association, Inc., National Wholesale Frozen Food Distributors, Inc., National Food Brokers Association, Grocery Manufacturers of America, Inc., National Voluntary Groups Institute,

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Canned Mushroom Standards

Notice is given in the *Federal Register* of March 10 that the Food and Drug Administration will hold a public hearing April 10 on proposals to amend the definitions and standards of identity and to establish a standard of fill of container for canned mushrooms.

Support Methods Contrary To Public Desire, Says Taylor

Government price support systems fail because they aim at keeping farm prices up while keeping production down—contrary to the desires of both farmers and consumers, it is asserted by N.C.A. President Henry Taylor.

This is one of several reasons given by Mr. Taylor in explaining the ineffectiveness of government controls over farm prices. He addressed the annual convention of the Utah Canners Association this weekend. He said:

"In a free economy price is the means by which supply is adjusted to demand. If the supply is short, the price rises. This cuts down the demand while producers are encouraged to create a larger supply. If the supply is large, the price falls. This increases the demand and discourages production of the supply.

"Note that in each case this works to the interest of the responsible person. The interest of the producer is served by more production when the price is high and less production when

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USDA To Buy 450,000 Cases Of Peaches, Apricots, Plums

The U. S. Department of Agriculture this week announced the contemplated purchase of approximately 450,000 cases of canned peaches, canned apricot halves, and canned purple plums of the 1949 pack for distribution to the National School Lunch Program during the period April 1 to 17.

Offer forms which were mailed March 9 call for U. S. Grade C or better, packed 24/2½'s and 6/10's and labeled with commercial labels. Offers must be received on or before 9 a. m., E.S.T., March 20, for acceptance not later than March 23.

Further information and offer forms may be obtained by communicating with F. N. Andary, Fruit and Vegetable Branch, Production and Marketing Administration, USDA, Washington 25, D. C., telephone Republic 4142, ext. 3450.

INSECTICIDES

Food and Drug Pesticide Tolerance Hearings

Following is a summary, prepared by Association Counsel and staff, of the proceedings at the FDA hearing on insecticide tolerances from February 27 through March 8.

The Insecticide Tolerance Hearings have received continued and impressive testimony as to the necessity for the use of insecticides. Of the 37 witnesses heard during the period February 27-March 8, one was from Connecticut, one from the FDA, 25 from the State of New York, two from Massachusetts, seven from New Jersey, and one from USDA.

The Connecticut witness was Dr. Philip Garman, a research associate in entomology with the Connecticut Agricultural Experiment Station whose primary work is research into the life habits of fruit insects and their control. In general, Dr. Garman's testimony was similar to that given earlier by witnesses from other parts of the country. He discussed stone, pomaceous, bush, vine, small, fruit vegetable and edible legume insects and the recommendations for their control in Connecticut. He said that for control of the plum curculio, while lead arsenate has been the standard control, it is being replaced by DDT, parathion and methoxychlor. Parasitic control of the Oriental fruit moth is not completely satisfactory and must be complemented by chemicals. For control of peach tree borers, apple maggots, codling moth, mites and leafrollers, chemicals must be used. DDT has been used extensively in recent years but many other of the newer chemicals are undergoing tests and show promise. Dr. Garman said that because of their low residue, rotenone and methoxychlor are recommended for control of the imported currant worm and the Japanese beetle and that mites can be controlled with the organic phosphates.

Of some interest to canners were his statements to the effect that there is no washing equipment on Connecticut fruit farms and that BHC, when used on potatoes, will give them an off-flavor. He concluded by cautioning that tolerances should be established in such a way that development of new chemicals will not be discouraged. Continuous production, trial and evaluation of new chemicals is necessary for successful insect control and a variety of chemicals must be available for the use of the grower to meet his complex insect control problems.

The witness from the FDA was Frank J. McFarland, assistant to the Secretary of the Food Standards Committee. He introduced a report of insecticide residue data which has been collected by the FDA. The reports gave relevant information on residues resulting from sprays of arsenic, lead, cryolite and DDT and their possible removal by washing. The only fruits tested were apples, pears, grapes and cranberries and with few exceptions there was no data as to the spray schedule used. There was no direct testimony upon the contents of the report but there was some cross examination which served to point up its limitations. Inspection of the report by N.C.A. staff members disclosed residues which were in conformance with others already introduced into the record.

Following this testimony, New York State representatives took over the witness chair. The organization, broad scope and careful preparation of their testimony has been equaled to date only by the USDA.

Dr. Charles E. Palm, professor of entomology and head of the Department of Entomology at Cornell University, Ithaca, began the New York presentation with a policy statement, in which he gave a general description of the New York State insect control program, the problems which are encountered and the aims and purposes of the program. Following Dr. Palm's introductory remarks, the order of testimony of the New York group was (1) two chemists, who introduced residue data and laid the groundwork for other residue testimony by succeeding witnesses (2) 12 entomologists, who discussed all the fruit and vegetable insects which are important to New York growers (3) two growers, and (4) nine plant pathologists.

Dr. Norton, associate professor of insecticidal chemistry at Cornell University, began the chemical testimony by reporting that the residue analysis methods used at Cornell were the Schechter-Haller on DDT, the Averell-Norris on parathion, the Claborn modification of the Stiff-Castillio and the total chloride method on some chlorinated compounds. He said that the total chloride determination method is of value in determining the maximum amount of chloride present but that it does not indicate the active ingredient.

Among the residue data presented by Dr. Norton were the following: In 1946, DDT residues on onion bulbs were found to average less than 0.1 ppm in samples from 25 plots and the maximum ppm in any single sample was 0.2. In 1949, DDT and DDD residues on cauliflower were experimentally determined and the curds all showed residues of less than 0.1 ppm. The highest single sample gave 0.06 ppm. Concerning cabbage residues, Dr. Norton pointed out the considerable difference between the amount of residue found on the lower leaves and on the market heads and also that wettable powders gave the highest residues, the dusts next while the emulsions gave the least. In conclusion, Dr. Norton gave three suggestions to be followed in adopting tolerance standards. He said (1) there should be a clear specification in the tolerance standard as to what portion of the plant it applies, (2) recognition in the standard that insecticidal applications and methods vary and (3) determination in the standard of a representative sampling technique so that uniformity and accuracy would be achieved.

Dr. A. W. Avens, associate professor of chemistry at Cornell University, testified briefly to the effect that he has done the residue work which the entomologists from Geneva were going to report. He said that he has done work on DDT, parathion and lead arsenate and is doing work on methoxychlor, chlordane, DDD and toxaphene but has no data on the latter group.

The fruit insect testimony was begun by Dr. Glass, associate professor of entomology at the New York State Agricultural Experiment Station. He discussed the apple insects, plum curculio, codling moth and red-banded leafroller and acceptable spray programs for their control. Lead arsenate was originally an effective control of the codling moth but as resistant varieties of moths have developed, its control has decreased. With the introduction of DDT, control was regained. DDT is superior to lead arsenate, parathion and DDD; the latter two are equal or superior to lead arsenate. Control methods other than chemical ones are partially but not sufficiently effective. For control of the red-banded leafroller, DDD and parathion are consistently better controls than other insecticides and of the two, DDD is superior.

Dr. Glass recommends 4 or 5 cover sprays of 50 percent wettable DDT for most apple growers with some substitution of DDD or parathion in case of severe infestation of red-banded leafrollers. All spray programs should include sulfur or some other fungicide. Concerning residues, he said that on 5 DDT cover sprays, the residues were found to vary from 2 to 6 ppm and a tolerance of at least 7 ppm is recommended. No known DDT residue removal method is effective. There is no DDD residue data yet available but there will be soon and it is expected to be similar to that of the DDT. Dr. Glass also pointed out that some insecticides are injurious to certain varieties of apples and not to others. For example, parathion injures McIntosh and Portland apples and not others; consequently, growers need a wide latitude of choice of insecticides to care for their individual insect problems and variety of apples. Dr. Glass asked that residue tolerances

on apples be established for DDT, DDD, parathion, lead arsenate, DN-111 and any other insecticide now under test which might be deemed a deleterious material.

Dr. R. W. Dean, an associate professor of entomology, discussed apple maggots and mites. He said that maggots can be controlled with 3 applications of 3½ pounds of lead and calcium arsenate per 100 gallons. Cryolite is not as effective as the arsenates but DDT and DDD will give good control. Dr. Dean said that parathion is the most toxic chemical yet tested in the laboratory but because of its low residual qualities it is not effective under field conditions. Other chemicals being tested are chlordane and toxaphene.

The European red mite and two spotted mite are the most abundant and injurious of the mites which infest New York. They cause injury by fruit discoloration and also by reducing fruit size, by causing dropping and by bud injury which reduces future crops. For control, Dr. Dean said that the mites' wintering eggs can be destroyed with such materials as petroleum oils, dormant sprays and sprays containing dinitro salts. The acaricides which are applied so as to kill wintering eggs must be of a type that will not injure new leaves and buds and also must be compatible with any insecticides which might then be in use. Summer mite control is best with insecticides which have a high persistence value and such fact should be taken into account when the tolerance standards are written. DN-111, TEPP and parathion are being tested as mite controls during the growing stage of the fruit. TEPP and parathion have high initial effectiveness but due to their lack of persistence, they must be used repeatedly.

Dr. E. H. Smith discussed peach, plum, prune and quince insects. He said that the plum curculio and Oriental fruit moth were the two major peach pests in New York. Methods which will control them will usually control any additional pests which may infest peaches. The plum curculio can cause as much as 54 percent of crop loss. Lead arsenate was the first control used but tests have shown that chlordane and parathion are effective and they are recommended for the 1950 spray program for curculio control. They should present no residue problem, if used as recommended, because their application will be in the early growing stages of the fruit and long before harvest.

Prior to the advent of DDT, Oriental fruit moth control was largely carried on with parasites, but as such, control was not satisfactory. DDT has proved to be effective against the moth. The recommended DDT program results in residues of as high as 7 ppm. Dr. Smith said some residue can be removed through processing and some from fresh fruit by the housewife.

Parathion is also recommended for control of the Oriental fruit moth. Tests show that its residue is reduced quite rapidly by weathering because of the high rate of volatility. A final point in Dr. Smith's testimony on peach insects was that minor pests can be of major concern to the individual orchards in which they occur.

Dr. Smith said plums and prunes are infested with many of the same insects that bother peaches and apples and can be controlled in the same way. As compared to peaches, he thought plums and prunes would have less residue because of lack of fuzz. DDT is recommended for control of Oriental fruit moth on quinces and tests of five samples of quinces which had received five DDT applications showed residues on four of them of less than 7 ppm.

Dr. P. J. Chapman, professor of entomology at the New York State Agricultural Experiment Station at Geneva, testified concerning pear and cherry insects. He said that the pear psylla was the most important pear insect; for its control, there could be some treatment before bloom but more would be required in the summer. Parathion, cube or nicotine sulfate can be used and no residue problem is expected.

Cherry fruit flies and the curculio are the most serious cherry insects. They are controlled almost entirely by lead arsenate and there is little residue problem because of the early use of the chemical and because of effective removal methods at processing plants. Residues on fresh fruit are more of a problem because there are no removal procedures followed. The residue can be reduced by following careful spray programs or by using rotenone. Rotenone isn't as effective a control but its use results in less residue. Dr. Chapman concluded by urging caution in setting up tolerances for control of pests of deciduous fruits. He suggested that a different tolerance limit be put on fresh fruit as compared to that intended for processing because processors have better means and equipment for residue removal.

Dr. Taschenberg, associate professor of entomological research at the Experiment Station, discussed grape, currant and tomato insects. Of the grape insects, he said the grape leafhopper is the most serious and that it can be controlled with DDT or nicotine sulfate, with the former being more effective. DDT, at the rate of 2 pounds of 50 percent wettable powder per 100 gallons gives good commercial control of the Japanese beetle. DDT over a 5-year period gave an average control of the grape berry moth of 96 percent. Methoxychlor and parathion have given similar control but DDT is inferior to them. When a spreader sticker is not added to the control, there is a decrease in efficiency. Dr. Taschenberg introduced DDT residue data which showed ranges of 11.2 ppm after 4 applications to 0.9 ppm following only one application immediately after bloom. Parathion, even with applications as heavy as 2 pounds, showed residues of less than 1 ppm within 21 days after application.

Dr. Taschenberg also discussed the San Jose scale, currant aphid, imported currant worm, gooseberry fruit worm, imported currant borer and the two spotted mite as they affect currants. Of the suggested insecticide controls, parathion and DDT were the most important and he gave residue data on both of them. Parathion, when used as a control of the imported currant borer, resulted in residues ranging from 0.03 to 0.44 ppm, depending upon the time from the last spray to harvest and the rate of application. DDT residues in grains per pound ranged from 0.2 to 0.018.

In New York State, only aphids are considered to be of much importance to tomato growers. They can be effectively controlled by parathion, although DDT and nicotine are also used. Tomatoes which were 1½ inches in diameter and picked after the pink stage had parathion residues of less than 1 ppm 8 days after application and less than 0.01 ppm after 15 days.

Dr. Avens returned briefly to make a statement with regard to a difficulty encountered when determining parathion residue on Concord grapes. When using the Averell-Norris analytical method, readings on blanks were obtained from fruit which had never been treated with parathion. Dr. Avens had no explanation as to the cause of the difficulty.

Dr. R. W. Dean discussed raspberry and strawberry pests. He said that most pests which infest them are treated before bloom and so there can be no residue problem. When treatment is necessitated after bloom, TEPP is the recommended control and because of its low persistency there is little or no residue problem involved.

The first witness to discuss vegetable insects was Dr. W. A. Rawlins, professor of entomology at Cornell University. He described the Colorado potato beetle, potato flea beetle, potato leafhopper, potato aphid, green peach aphid and tarnished plant bug. Potato insects are often accompanied by diseases and so control is obtained by combined use of insecticides and fungicides. Dr. Rawlins discussed Bordeaux mixture, nicotine and sulfur dusts and DDT. Since the introduction of DDT for control of potato insects, there has been an average increase in potato yield of 38½ percent in upper New York and 46 percent at the Long Island Experiment Station. The DDT is not an absolute control of the potato aphid and so when it is particularly troublesome, parathion is

recommended. It has been found that BHC when used as a soil insecticide on potatoes will give them an off-flavor.

Dr. A. B. Buckholz, director of the Bureau of Plant Industry of the New York State Department of Agriculture and Markets, gave a brief statement asking that chemical tolerances of reasonable and safe nature be established for fruit and vegetable crops.

Dr. G. E. R. Hervey, professor of entomology at the New York Agricultural Experiment Station, testified concerning the cabbage insects, such as the cabbage caterpillar, cabbage looper, diamond back moth, cabbage aphid and thrips. DDT is the most effective material tested as a control of the caterpillars. DDD is nearly as effective and might be recommended as a substitute in some spray programs to decrease residue problems. For control of aphids, parathion is most effective; rotenone is recommended for control of flea beetles.

Cauliflower, broccoli, Brussels sprouts, lima bean, eggplant and pepper insects were discussed by Dr. H. C. Hackett, member of the staff of the entomology department of the College of Agriculture, Ithaca. The control recommendations were similar to others already given by previous witnesses on these crops. The recommended controls for cabbage maggot are corrosive sublimate, calomel dust and starch, or chlordane; for Mexican bean beetle, rotenone is recommended and for the two spotted spider mite, aphids, and bean leafhopper, parathion is most effective followed closely by TEPP. Spergon and Arason are recommended for control of the seed corn maggot but lindane, chlordane, aldrin and dieldrin are being tested.

Dr. Hervey resumed the witness chair to talk about snap beans, cucurbits, squash, pumpkins, spinach, asparagus and carrots. DDT and parathion when used on snap beans and applied with a hand duster on July 30 and August 10 at rate of 40 pounds per acre resulted in residues on August 15 of 1 ppm and 0.01 ppm, respectively. Technical grade DDT injures the foliage of squash, pumpkins and cucurbits while aersol grade DDT doesn't. Nicotine sulfate or TEPP are recommended for control of aphids and mites on spinach; rotenone or DDT for control of the asparagus beetle and DDT for control of the six spotted leafhopper on carrots.

George Butler, a graduate student at Cornell University, presented evidence on peas and corn and the insects which are a problem to them in New York. The pea weevil can cause the loss of a whole pea crop. Control recommendations are rotenone, parathion or DDT. Five percent DDT dust applied by airplane to a commercial pea crop resulted in residues which in all cases were less than 1 ppm. One-half and 1 percent parathion dust resulted in residue of 0.2 ppm 13 days after applications. Rotenone, parathion, nicotine dust and DDT are all recommended for control of the pea aphid. DDT dusts have been highly effective.

Ryania, DDT and parathion will all give above 80 percent control of the European corn borer while rotenone will give a little less. DDT and parathion are effective against the corn earworm, fall armyworm and Japanese beetle. Residues on corn husks of 0.29 and 1.34 ppm resulted from 1 and 3 applications (at 2-day intervals) of 1 percent parathion dust. No traces of parathion were found on the husked ears. No residues of DDT were found on the kernels of sweet corn which had received five DDT applications for corn earworm control.

Dr. R. W. Leiby, project leader in extension entomology, D. M. Dalrymple, secretary of the New York State Horticultural Society, and Gerow Schoonmaker, a fruit grower and insecticide salesman from Ulster County, presented statements emphasizing the need for insecticides in order to insure successful fruit and vegetable production.

Testimony from the plant pathologists was begun by Dr. J. M. Hamilton, professor of plant pathology at Cornell University. He said that without fungicides, fruit could not be satisfactorily produced. A satisfactory fungicide must (1) not be toxic to the plant (2) control the plant disease (3) not be toxic to the operator and (4) be compatible with any insecticides which are in simultaneous use. Fungicides vary in their specificities; some are eradicants and some are protectants while a few are both; no one fungicide is the complete answer to all plant disease problems.

Lime sulfur is both an eradicant and a protectant but it also causes severe plant injury when applied at a time of high temperatures; also it is not compatible with oil insecticides. In looking for fungicides to replace the sulfurs, fermate was discovered. It has an extremely high specificity for cedar rust and will also control scab. Following the development of fermate came the puratized mercury materials and phygon which were also designed to replace the sulfurs.

Dr. Hamilton said that organic materials are not the complete answer for control of plant diseases. They are poor protectants; many of them are highly specific and their use is of value at only certain times during the growing season and under certain climatic conditions. Their most beneficial use depends upon the care, thought and perfection that goes into the spray program which is followed. Many of the organic materials are complementary and Dr. Hamilton urged that none of them be banned because under the requisite conditions, all can be of value.

Other points of Dr. Hamilton's testimony were that trees seem to be able to tolerate only so much of any one fungicide and so mixed programs of various fungicides are many times highly desirable. For control of cherry diseases such as cherry leaf spot, sulfur was the original material used but now it has been largely replaced by the insoluble coppers. Sulfur and zerlate are still the two best controls of brown rot; other materials show some promise. According to Dr. Hamilton, fungicide residue is not a great problem. The highest average residue found on McIntosh apple trees sprayed with Puratized Agriculture Spray and Tag #331 was 0.22 ppm. Dr. Hamilton urged that as much leeway and freedom as possible be incorporated into the tolerance standards so that continued development of new fungicides will be possible.

The plant pathology testimony which followed Dr. Hamilton's was similar in vein although more detailed. Dr. Palmiter, professor of plant pathology, discussed apple, pear and stone fruit disease. He said that apple scab can be controlled only with fungicides applied during the growing season. During the past five seasons unsprayed orchards have been almost completely defoliated and because of the defoliation there has been a large crop reduction in the following year. For control of apple scab during normal seasons, 3 or 4 fungicide applications are necessary before bloom and 5 or 6 after the bloom period.

Sulfur and copper compounds fail to meet many of the requirements of effective fungicides and consequently there has come the development of the organic materials such as phenyl mercury and others. These new materials do not have some of the objections of the older ones; they are more specific, can be used under conditions that make sulfur unusable, are eradicants and so can be used after infection has gotten started instead of being of value only prior to infection and finally, they are more toxic and so fewer applications are necessary.

Other apple and pear diseases discussed by Dr. Palmiter were cedar apple rust, quince rust, Brooks fruit spot, sooty blotch, fire blight, black rot and brown rot of stone fruits.

Dr. K. G. Parker, plant pathologist at Cornell, reported that in control of the apple scab disease, better results could be obtained with the use of a fixed outlet sprayer rather than the conventional one. Dr. W. D. Mills, also a plant pathologist, said that the use of mild sulfurs and ferbam instead of liquid lime sulfur results in increased yield. The phenyl mercury compounds are never recommended for use after bloom because of the possible residue problem that they could cause. For control of brown rot, fermate and sulfur in combination are the recommendations. Heptadecylgloxalidine and fermate are suggested as controls of leaf spot on sour cherries instead of copper. The copper causes fruit in-

jury and consequently there has been a search for substitutes.

Dr. A. J. Braun said that Bordeaux mixture is effective in controlling certain diseases of small fruits but it causes some reduction in fruit production because of plant injury; therefore, there has been a continuous search for new fungicides. Other crops and their diseases discussed by Dr. Braun were raspberries, currants, gooseberries, strawberries and grapes. He said that different varieties of grapes have different susceptibilities to grape diseases and so require different spray programs. Fermate has a beneficial effect on vine growth of about 10 percent while Bordeaux mixture has a detrimental effect.

Dr. W. T. Schroeder testified that tomatoes are attacked by early and late blight and by anthracnose. All three diseases can be controlled by the use of fungicides. The best control is a split schedule using ziram and Bordeaux in combination. In experiments to determine the effect of copper containing fungicides on the ascorbic acid and copper content of tomato juice, it was found that in no case did the copper content exceed 48 ppm. The processed tomato juice from sprayed and unsprayed tomatoes showed no difference in color, ascorbic acid content or in taste. As much as 50 percent of the copper can be removed by commercial washing methods. Some unsprayed tomatoes showed higher copper residues than plants which had been sprayed.

Dr. Charles Chupp, professor of plant pathology at Cornell, testified on the cucurbit diseases, leaf blight, anthracnose, and scab which can be controlled by the carbamates, and downy mildew, the recommended control of which is either zineb or copper compound. Dr. A. G. Newhall discussed onion, celery and lettuce diseases. He said the recommended control of lettuce bottom rot was ethyl mercury phosphate. There was considerable interest on the part of the government counsel in this last fungicide but Dr. Newhall in response to their questions was unable to give any residue data concerning it.

The last New York witness was Dr. Carl H. Fernow, associate professor of plant pathology at Cornell University. His testimony was confined to potato diseases; the original standard control for late blight and other potato diseases was and is Bordeaux. Copper lime dust is substituted when dust is preferred over spray. Dr. Fernow had no translocation data except some concerning copper fungicides which showed copper in the tubers of both sprayed and unsprayed plants.

Beginning March 6, witnesses were from Massachusetts. They were Dr. H. J. Franklin, who is in charge of the Cranberry Experiment Station, and W. D. Whitcomb, research professor at the Massachusetts Agricultural Experiment Station.

Dr. Franklin said that Massachusetts grows approximately two-thirds of all the cranberries grown in the world and that successful production is impossible without the use of chemicals. Among the chemicals used are sodium cyanide, nicotine sulfate, pyrethrum, rotenone, DDT, lead arsenate and cryolite. Most of them disappear rapidly and are thought to present no residue problem. The more persistent ones such as DDT are used early in the growing season and, according to Dr. Franklin's testimony, average DDT residues of 2 ppm are as much as should be expected.

Mr. Whitcomb discussed apples, peaches, pears and vegetable insects. His testimony was quite similar to that of the New York entomologists. Concerning residue data, he said one test of Gravenstine apples showed lead residue of 2 ppm while another test of McIntosh apples disclosed that handling in processing reduced the lead residue by 50 percent. A third test on DDT and DDD used in combination gave a maximum residue of 2.6 ppm. Other points of interest in his testimony were (1) BHC, while being a good control of peach insects, causes an off-flavor of the fruit, and (2) rotenone and pyrethrum which contained synergist dusts were both good controls of the Mexican bean beetle on beans.

The New Jersey testimony was begun by Dr. S. B. Randle, state chemist of the Agricultural Experiment Station. He gave a short statement on the significance of the New Jersey fruit and vegetable production which in 1948 was worth $71,000,000, and also introduced an exhibit of DDT residues. Of 96 apple samples which had been sprayed with DDT, 67 percent of them had residues of 0.0 to 5 ppm 35 days after application, 23 percent had residues of 5 to 10 ppm 25 days after application and 10 percent had average residues of 10 ppm to 15 ppm 12 days after the last application.

Dr. B. F. Driggers, associate research specialist on fruit insects at the New Jersey Agricultural Experiment Station, presented parathion residue data and stated that in the 1950 spray program, BHC will no longer be recommended for control of the strawberry leafroller. Apple samples taken from trees sprayed with parathion had residues of 0.106 ppm while ground samples averaged 0.054 ppm. He suggested that in control of many apple insects, parathion could be substituted for DDT. The high rate of volatilization of the parathion minimizes its residue problem.

A. J. Farley, professor of pomology at Rutgers University, made a general statement to the effect that insecticides are necessary for successful fruit and vegetable production.

Dr. R. H. Dane, professor and research specialist at Rutgers, discussed New Jersey fruit diseases. Apple scab is a serious problem to growers and its control has been attempted in three ways: Culture, spraying the ground with elgetol, and fungicides; of the three, only the latter is sufficient. Dr. Dane said lime sulfur can be injurious to the tree and fruit, Crag C bronzed the foliage and phygon causes fruit injury and is no longer recommended. Lime sulfur and the phenyl mercuries have eradicant qualities while, in general, the other apple scab fungicides are only protectants. It follows, therefore, that protectants such as wettable sulfur cannot be the sole reliance of the grower. He must have a variety of fungicide choice so that if the disease has already struck his orchard, protectants can be discarded and eradicants used instead.

Other fruit diseases discussed by Dr. Dane were Brooks fruit spot, sooty blotch, bitter rot, bacterial spot, brown rot, cherry leaf spot, stem rot, scurf, pox and mottled necrosis.

Dr. B. B. Pepper, chairman of the department of entomology at Rutgers University, introduced the recommended controls for vegetable insects. He said that in addition to the chemicals recommended, many others were in continuous trial and test and would be added when proved desirable. An interesting point of his testimony was that some insects which have been no problem to vegetable growers can suddenly change their feeding habits and become a great menace. He cited the pepper maggot and currant weevil as examples of the point.

Dr. Pepper said that rotenone or pyrethrum are recommended for control of the asparagus beetle during the cutting season and the arsenicals for control during the post-cutting season. DDT and parathion show promise as control of this insect. For control of spinach insects such as the garden webworm, looper and leafminer the recommended control is DDT and calcium arsenate applied early in the season followed by rotenone or pyrethrum late in the season so as to avoid poisonous residues. He said that there must be a high degree of spinach insect control before canners will accept the crop because of fear of having a too high insect fragment count. TEPP is recommended as an excellent control of spinach aphids. Ethylene dibromide is recommended for control of wireworms but lindane shows promise. Rotenone and nicotine are the only materials recommended for control of the pea aphid.

Dr. C. N. Haenseler, professor of plant pathology at Rutgers University, testified about vegetable diseases. He said that chemicals are used to combat plant disease in three different ways: Seed treatments, soil treatments, and treatment of growing plants. The testimony was similar to that given by other pathologists except

in reference to one chemical called SR 406. This fungicide is being developed at Rutgers University on a research fellowship and shows promise as a control of many fruit and vegetable diseases. As yet, there is no residue or toxicological data on the chemical. Among the vegetable crops discussed by Dr. Haenseler were leafy vegetables, brassicas, fruit vegetables, sweet corn, edible legumes and small fruits.

W. E. Tomlinson of the New Jersey Agricultural Experiment Station discussed the insects and diseases of blueberries and cranberries.

The final witness for this session of the hearings was Dr. Fred Poos of the USDA who discussed peanuts and soybeans. The hearings adjourned and was recessed until Monday, March 13, 1950, at which time testimony on citrus will be given by Florida witnesses.

PUBLICITY

The New Yorker Magazine

The "welcome" signs greeting canners and food brokers to Atlantic City conventions appear as background in a cartoon by the noted Gluyas Williams in the March 11 issue of *The New Yorker* magazine. The full-page cartoon, entitled "America's Playgrounds, Atlantic City—Winter," depicts a typical boardwalk scene including convention delegates, with attendance badges, walking and riding on the boardwalk. The cartoon includes two signs, one at a hotel door and another in a shop window, saying, "Welcome, National Canners of America and Food Brokers."

Seventeen

The March issue of the nationally-distributed magazine *Seventeen* for teen-agers carried two articles using canned fish.

Entitled "Fish Without Fuss," the first article gave five fish recipes accompanied by photographs. Four of the recipes used canned fish. The fish used in the recipes were canned crabmeat, salmon, codfish and tuna, and included snacks, salad, loaf, and a casserole.

The second article was entitled "Every Crowd Likes Oyster Stew" and gave quantities of oysters needed when using raw shucked, frozen, or canned oysters. The article is illustrated with line drawings.

The Family Circle

The March issue of *The Family Circle* in a double-page feature gives four dinner menus built around cream style corn. Entitled "Serve a Meal Starring Cream Style Corn," the article by Drury Strong presents "four budget-minded family meals . . . each planned around a main course made with a can of cream style corn." The recipes are for corn in hash ring, succotash bake, waffles, and fritters.

The American Weekly

"Household Almanac," the food page of *The American Weekly*, is entitled "Add Zest to Lenten Meals with Tuna" in the February 19 issue. Eight recipes calling for the use of tuna are given by Food Editor Amy Alden.

"Probably no other food combines so well with so many others for highly diversified thrifty dishes as does tuna, as well as being popular for itself alone!" the article states.

Recipes call for the use of tuna in tuna and eggs, tuna waffles, tuna sandwiches, tuna salad, tuna hors d'oeuvres, tuna spread, and two hot dishes.

Good Housekeeping

The March issue of *Good Housekeeping* magazine again features canned foods in its high-readership "Susan Does It" article.

In a two-page spread entitled "Susan's Tuna Treat," canned peas, condensed cream of mushroom soup, and tuna are used to make the main course. Color photographs show the steps in preparation as well as the finished dish. In the suggested menu, canned fruit cocktail is the dessert.

Recipes for homemade soups are given in another article, "A Meal in a Soup Bowl." Some of the recipes call for the use of canned soup or other canned foods as an ingredient in the soup. A full-page color photograph accompanying the article is captioned:

"Grandmother's ironstone soup tureen was always handy—ready for piping-hot, savory soups with which she so often satisfied her family's hearty appetites. The hours of preparation and cooking that these soups required are saved today by canned and packaged soups, which need only heating to bring out their goodness."

"Canned Sour Cherries—Tart 'n' Sweet" is the title of a short recipe article giving recipes for brunch cherry cake and Brazil nut cherry pie.

Better Homes and Gardens

The March issue of *Better Homes and Gardens* has an article by Betsy Nichols entitled "Luscious Desserts You Can Fix in 10 Minutes." The article gives ten recipes with photographs. Each recipe starts with a can of fruit cocktail, peaches or pineapple.

Miss Nichols states, "They're planned for club or shopping days when you arrive home just before the family. But don't overlook their possibilities for a party or Sunday dinner.

"First you go to the canned foods shelf for fruit cocktail, pineapple, or peaches. Then use one of the quick tricks we show you here and on the following pages. You'll have a special treat for dessert and a health-plus for your family at the same time."

PERSONNEL

Northwest Packers & Growers

The Northwest Packers and Growers, Inc., has elected the following officers for 1950:

President—Edward I. Pitkin, Eugene Fruit Growers Association, Eugene, Ore. (reelected); vice president—Elmore E. Hill, Blue Lake Packers, Inc., Salem, Ore.; and secretary-treasurer—William E. Yeomans, Portland, Ore. (reelected).

New Jersey Canners Assn.

The New Jersey Canners Association has elected the following officers for 1950:

President—E. W. Montell, Campbell Soup Co., Camden; vice president—Arthur W. Schiller, E. Pritchard, Inc., Bridgeton; and secretary-treasurer—Newlin B. Watson, Greenwich (reelected).

Illinois Canners Association

The Illinois Canners Association has elected the following officers for 1950:

President—P. A. Washburn, A. Washburn & Sons, Bloomington; vice president—G. R. Garrett, The J. B. Interrieden Co., Chicago; and secretary-treasurer—W. D. Jones, Streator (reelected).

Conferences with Food Leaders

Ingrid Selander of the N.C.A. Home Economics Division has returned to Association headquarters following a two and a half week business trip to Knoxville, Chattanooga, Nashville, Memphis, Birmingham, Atlanta, Charlotte, and Richmond. These cities had not been visited by the Home Economics Division since before the war.

Conferences were held with state and city supervisors of home economics and school lunch programs, newspaper food editors, radio broadcasters, directors of home service departments of gas and electric companies, foods and nutrition teachers of college classes, and other leaders in foods work.

Miss Smith Aids in Contest

Katherine R. Smith, Director of the Association's Home Economics Division, served on an advisory committee and assisted in the annual National Cherry Pie Baking Contest which was held in Chicago recently.

Taylor at Utah

(Concluded from page 119)

it is low. The interest of the buyer is served by greater purchases when the price is low and smaller purchases when the price is high.

"The government, on the other hand, expects to keep the price up and to keep production down. It simply does not work. When a high price is guaranteed, the producer bends every energy to outwit the government and to produce as much as possible and get away with it. If the price is too high, the consumer simply will not buy and the government has to pile up an unwanted surplus or to pay a subsidy which ultimately comes out of the taxpayer.

"The government is defeated simply because the government makes it to the interest of all the parties involved to do the exact opposite of what the government wants done. This kind of control is like trying to hold down a spring. It stays down just as long as you hold it, and if there are too many springs you simply cannot hold them all down."

Mr. Taylor said that the chief reason for the ineffectiveness of government controls over farm prices is that "government control will always and inevitably be based on political considerations."

CONGRESS

Penalties for FTC Violations

The penalty provisions applicable to violations of orders of the Federal Trade Commission will be extended through a provision in the oleomargarine tax repeal bill which received final Congressional approval on March 8. The amendment to the Federal Trade Commission Act provides that each violation of a cease and desist order shall be construed to be a separate offense; and in the case of a violation through continuing failure or neglect to obey a final order of the Commission, each day of continuance shall be deemed a separate offense.

These penalty provisions do not apply to Robinson-Patman Act violations.

Antitrust Penalties

The Walter bill, H. R. 6679, to increase the maximum penalty for violation of the antitrust laws from $5,000 to $50,000, was approved on March 8 by the House Judiciary subcommittee on monopoly. The subcommittee's report to the full Judiciary Committee also will propose that the increased penalty provision apply to Robinson-Patman Act violations. In addition, the bill provides that when a corporation is found guilty of a violation, the violation shall be deemed to be that of the individual directors and officers who authorized or ordered the acts constituting the violation; and these persons would be subject to the penalty provisions of imprisonment not exceeding one year or a fine not exceeding $50,000, or both.

Alaskan Statehood

Legislation providing for the admission of Alaska and Hawaii into the Union as states has been passed by the House. H. R. 331, for Alaska, was passed March 3 and H. R. 49, for Hawaii, was passed March 7.

The Alaska Statehood Committee of the Territorial Government has included the following statement among the reasons why Alaska needs statehood:

"As a Territory, Alaska is denied power to regulate its fisheries, long the basis for its principal industry. The result has been an alarming depletion of the salmon runs."

Unless approved by the Senate in the months remaining for the 81st Congress, both H. R. 331 and H. R. 49 will have to be reintroduced and be put through the legislative process again in the House.

Excise Tax Revision

After weeks of public hearings on its excise tax revision program, the House Committee on Ways and Means this week began executive consideration of the proposed revisions. Among the proposals are those dealing with excise taxes on transportation and communications.

Price Support Obligations

The borrowing authority of the Commodity Credit Corporation would be increased $2,000,000,000 by bills, H. R. 6567-S. 2826, approved on March 8 by the House Banking Committee and the Senate Agriculture Committee. These two committees have simultaneously been considering the Administration's request for this additional authority to meet price support obligations.

The Senate Agriculture Committee also approved a provision that would authorize the President to establish or add, in addition to existing rates of duty, an ad valorem tariff of up to 50 percent on imports that would tend to make the price support program ineffective.

Trade Practice Conference

(Concluded from page 119)

Super Market Institute, National Association of Food Chains, Cooperative Food Distributors of America, National Association of Retail Meat & Food Dealers, Inc., and the National Association of Frozen Food Packers.

Persons, concerns or groups connected in any way with the grocery industry are invited to send to the FTC their suggestions or proposals for trade practice rules, which will be given consideration.

All persons interested in the proceeding will have full opportunity, FTC states, to propose changes, amendments, or additions to rules before they are finally approved by the Commission. Prior to final action, an appropriate draft of proposed rules will be published and made available by the Commission to all interested persons, with opportunity for study and for hearing.

Invitations for Bids

Quartermaster Purchasing Offices—111 East 16th Street, New York 3, N. Y.; 1819 West Pershing Road, Chicago 9, Ill.; Oakland Army Base, Oakland 14, Calif.

Veterans Administration—Procurement Division, Veterans Administration, Wash. 25, D. C.

The Walsh-Healey Public Contracts Act will apply to all operations performed after the date of notice of award if the total value of a contract is $10,000 or over.

The QMC has invited sealed bids to furnish the following:

JAMS—668 dozen 11-oz. cans each of apricot, grape, and peach jams; 672 dozen 11-oz. cans of raspberry jam; and 676 dozen 11-oz. cans of strawberry jam, f.o.b. origin. Bids due at Chicago under Bid No. QM-11-183-50-589 by March 23.

TOMATO CATSUP—16,350 4-oz. cans, f.o.b. origin. Bids due at Chicago under Bid No. QM-11-183-50-590 by March 23.

CANNED VEGETABLES—680 dozen No. 2 cans each of lima beans, green and wax beans, and peas; and 1,360 dozen 12-oz. cans of corn, all f.o.b. origin. Bids due at Chicago under Bid No. QM-11-183-50-591 by March 22.

CANNED FRUITS—660 dozen No. 2½ cans each of apricots, Royal Anne cherries, Kadota figs, fruit cocktail, and peaches, all f.o.b. origin. Bids due at Chicago under Bid No. QM-11-183-50-586 by March 23.

The Veterans Administration has invited sealed bids to furnish the following:

MARASCHINO CHERRIES—4,200 one-half gallon jars or 2,100 one-gallon jars, f.o.b. destination. Bids due under Invitation No. 195-S by March 27.

The General Supplies Administration (Service Office Division) of the Government of Puerto Rico, San Juan 21, P. R., has issued an invitation for bids on quantities of various canned foods. Deadline for the receipt of bids was March 6. Inquiries about this and future invitations should be addressed to A. Diaz Rivera, chief of the Service Office. The invitation and specifications were in the Spanish language. Principal canned foods sought are listed:

Canned Food	U. S. Grade	Can size	No. Cases
Tomatoes	(B)	2½	7,500
Green snap beans	(B)	2	9,474
Carrots, diced	(A)	2	8,900
Corn, g.s., w.k.	(B)	2	9,000
Mixed vegetables	(A)	2	1,500
Tomato paste	(A)	2½	4,286
Beets, diced	(A)	2	3,000
Spinach	(A)	2½	919
Pineapple, crushed	(A)	2	3,861

FISHERIES

Alaska Fishery Regulations

Regulations governing the commercial fisheries of Alaska for 1950 have been revised by the Fish and Wildlife Service. The new regulations were published in the *Federal Register* of March 9.

STATISTICS

Wholesale Distributor Stocks of Canned Foods

A summary showing wholesale distributors and canners' stocks of specified canned foods, compiled by the Bureau of the Census and combining canners' stock totals of the N.C.A.'s Division of Statistics, is shown below:

Wholesale Distributors and Canners' Stocks of Specified Canned Foods

(Includes Warehouses of Retail Food Chains)

Commodity	Feb. 1, 1950 Distributors	Feb. 1, 1950 Canners	Jan. 1, 1950 Distributors	Jan. 1, 1950 Canners	Dec. 1, 1949 Distributors	Dec. 1, 1949 Canners	Nov. 1, 1949 Distributors	Nov. 1, 1949 Canners
	(thousands of actual cases)							
Vegetables:								
Beans, green and wax	3,806	6,600	4,033	8,605	4,042	N.A.	3,959	N.A.
Corn	6,390	21,402	6,963	24,442	6,660	26,968	7,090	29,030
Peas	5,589	9,874	6,196	12,133	6,628	13,900	6,402	15,757
Tomatoes	4,986	8,132	5,473	9,479	5,717	11,109	5,984	N.A.
Fruits:								
Apricots	942	1,538	988	1,760	1,010	1,942	1,064	2,123
Fruit cocktail [1]	1,685	6,731	1,815	7,377	1,902	7,926	2,044	8,465
Peaches	4,478	11,077	4,857	12,278	4,772	13,348	4,939	14,559
Pears	1,045	2,949	1,131	3,181	1,155	3,666	963	N.A.
Pineapple	[4]4,035	4,472	4,221	4,905	3,100	5,474	1,513	7,192
Juices:								
Tomato [2]	2,990	12,831	3,371	14,602	3,367	15,917	3,420	N.A.
Grapefruit [3]	1,050	[4]922	484	309	322	67	561	65
Orange [3]	1,827	[4]6,611	1,204	4,037	839	1,459	954	23
Citrus blend [3]	608	[4]1,587	402	643	312	336	446	80
Pineapple	1,768	3,850	1,895	4,008	1,452	4,323	776	5,550

N.A.—Not available. [4] Revised. [1] Includes fruit for salad and mixed fruits (except citrus). [2] Includes vegetable juice combinations containing at least 70 percent tomato juice. [3] Canners' stocks cover only Florida and are reported on No. 2 basis—not in actual cases. [4] As of January 28, 1950.

Source of canners' stocks: National Canners Association, Pineapple Growers Association of Hawaii, and Florida Canners Association.

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